# **REMARKS**

By this response, no claims have been added, cancelled, or amended. Hence, Claims 1, 3-14, 16-27, and 29-39 are pending in the application.

#### THE PENDING CLAIMS ARE PATENTABLE OVER THE CITED ART

Claims 1, 3-14, 16-27, and 29-39 stand rejected under 35 U.S.C. § 103(e) as allegedly being anticipated by U.S. Patent Application No. 2003/0126265 issued to Aziz et al. ("Aziz") in view of U.S. Patent Application Publication No. 2004/0221038 issued to Clarke Jr. et al. ("Clarke"). Applicants respectfully traverse.

Even if the cited art were to be properly combined, each pending claim recites at least one element that is not disclosed, taught, or suggested by *Aziz* or *Clarke*, either individually or in combination.

### Claim 1

Claim 1 recites:

determining, by a grid establishment component, from a plurality of nodes, a set of grid nodes to include in a resource grid, wherein each grid node provides zero or more resources, and wherein each grid node has a grid facilitation agent operating thereon; and

establishing, by the grid establishment component, the resource grid, wherein establishing comprises:

configuring each grid node to enable that grid node to participate as part of the resource grid, wherein configuring a grid node to enable that grid node to participate as part of the resource grid comprises:

deploying a grid participation module to the grid facilitation agent operating on the grid node, and

instructing the grid facilitation agent to run the grid participation
module on the grid node to enable the grid node to participate
as part of the resource grid, and

establishing one or more grid masters to manage access to the resources provided by the grid nodes, such that the resource grid formed by the grid nodes behaves as a single pool of resources accessible through the one or more grid masters. (emphasis added).

The Office Action acknowledges (on page 5) that *Aziz* does not disclose, teach, or suggest the above-bolded portions of Claim 1. Instead, the Office Action relies upon *Clarke* to show these features.

The Office Action cites paragraph 49 of *Clarke* to show all of the above-bolded features. Paragraph 49 of *Clarke* states, in *toto*:

In one embodiment of the invention, for example, monitoring tools are deployed on potential grid resources to monitor application-level and server-level usage information such as: maximum, and minimum utilization, patterns of application demand, amount of available and required disk, memory, network bandwidth, etc. Tools may be non-invasive, especially for those resources not part of any distributed computing environment, or they may be invasive, e.g., requiring installation of an agent on an IT resource. In one embodiment, the monitoring tools are used to post-process log files.

As a result, the position of the Office Action requires that the above paragraph suggest each and every feature of the above-bolded features of Claim 1. However, while the above paragraph of *Clarke* does discuss deploying monitoring tools to a potential grid resources, which may involve installing an agent on an IT resource, the above paragraph fails to suggest configuring a grid node to enable that grid node to participate as part of a resource grid. In fact, the above paragraph of *Clarke* fails to suggest all of the following concepts found in the above-bolded elements of Claim 1:

- (1) configuring a grid node to enable that grid node to participate as part of the resource grid;
- (2) deploying a grid participation module to the grid facilitation agent operating on the grid node; and
- (3) instructing the grid facilitation agent to run the grid participation module on the grid node to enable the grid node to participate as part of the resource grid.

Paragraph 49 of *Clarke* discusses the deployment of monitoring tools to a potential grid resource, but these monitoring tools cannot configure a grid node to enable that grid node to participate as part of a resource grid. Indeed, the concept of configuring a grid node to enable that grid node to participate as part of the resource grid in the manner as claimed is completely absent from *Clarke*. As a result, *Clarke* cannot possible show the element of "configuring each grid node to enable that grid node to participate as part of the resource grid" recited in Claim 1.

Moreover, paragraph 49 of *Clarke* also fails to suggest anything remotely analogous to deploying a grid participation module to a grid facilitation agent operating on a grid node. For

example, the position of the Office Action argues that "wherein each grid node has a grid facilitating agent operating thereon" is shown by the discussion in paragraph 49 of "requiring an installation of an agent." Assuming, arguendo, that the grid facilitating agent of Claim 1 is analogous to the installed agent of paragraph 49 of Clarke, Claim 1 further requires that a grid participation module be deployed to the grid facilitation agent, and nothing within Clarke discloses, teaches, or suggests deploying anything that qualifies as a grid participation module as claimed to the agent of Clarke so that the agent of Clarke may be instructed to run the grid participation module to enable the grid node to participate as part of the resource grid.

Indeed, the Office Action even fails to identify what is allegedly analogous to a grid participation module, and instead, simply block quotes a large portion of paragraph 49 of *Clarke* without explaining what is allegedly analogous to a grid participation module. As a result, *Clarke* cannot possible show the element of "deploying a grid participation module to the grid facilitation agent operating on the grid node" recited in Claim 1.

Additionally, as *Clarke* fails to suggest anything remotely analogous to deploying a grid participation module to a grid facilitation agent operating on a grid node, *Clarke* cannot possible disclose, teach, or suggest instructing the grid facilitation agent to run the grid participation module on the grid node, since nothing analogous to a grid participation module is ever deployed to a grid facilitation agent in the approach of *Clarke*. As a result, *Clarke* cannot possible show the element of "instructing the grid facilitation agent to run the grid participation module on the grid node to enable the grid node to participate as part of the resource grid" recited in Claim 1.

Consequently, *Clarke* fails to disclose, teach, or suggest the above-bolded features of Claim 1. Further, *Aziz* is acknowledged to lack any teaching or suggestion of the above-bolded features of Claim 1. Thus, even if *Aziz* and *Clarke* were to be properly combined, the resulting combination would still fail to disclose, teach, or suggest the above-bolded features of Claim 1. As a result, Claim 1 is patentable over the cited art and is in condition for allowance.

#### Claim 4

The manner in which Aziz establishes a resource grid is markedly different than the approach of Claim 4.

Aziz teaches:

The role of the computing element is acquired from one of a plurality of predefined, stored blueprints, each of which defines a boot image for the computing elements that are associated with that role. The blueprints may be stored in the form of a file, a database table, or any other storage format that can associate a boot image location with a role. (paragraph 72).

Thus, each computing element in Aziz participates as part of a VSF by acquiring a boot image containing instructions for participating in the VSF, and thereafter reboooting. As a result, the approach of Aziz does not involve the concept of a grid facilitation agent operating on a grid node.

Indeed, the Office Action acknowledges:

Aziz does not explicitly teach the limitations: "wherein each grid node has a grid facilitating agent operating thereon" and "wherein configuring a grid node to enable that node to participate as part of the resource grid comprises: deploying a grid participation module to the grid facilitation agent operating on the grid node, and instructing the grid facilitation agent to run the grid participation module on the grid node to enable the grid node to participate as part of the resource grid (see Office Action, page 5).

However, Claim 4 recites the very same features that Aziz is acknowledged to not disclose, teach, or suggest; however, Aziz is relied upon to show these elements of Claim 4.

To illustrate, Claim 4 recites:

- determining, by a grid establishment component, from a plurality of nodes, a set of grid nodes to include in a resource grid, wherein each grid node provides zero or more resources;
- establishing, by the grid establishment component, the resource grid, wherein establishing comprises:
- configuring each grid node to enable that grid node to participate as part of the resource grid, wherein configuring a grid node to enable that grid node to participate as part of the resource grid comprises:

causing the grid node to execute a grid facilitation agent thereon;

- deploying a grid participation module to the grid facilitation agent executing on the grid node; and
- instructing the grid facilitation agent to run the grid participation module on the grid node to enable the grid node to participate as part of the resource grid, and
- establishing one or more grid masters to manage access to the resources provided by the grid nodes, such that the resource grid formed by the grid nodes behaves as a single pool of resources accessible through the one or more grid masters. (emphasis added).

The Office Action acknowledges Aziz fails to show the above-bolded features of Claim 4, and no other reference is cited to show the features of Claim 4. Consequently, Aziz cannot

disclose, teach, or suggest the above-bolded features of Claim 4. As a result, Claim 4 is patentable over the cited art and is in condition for allowance.

As pointed out previously, Aziz does not disclose, teach, or suggest anything analogous to a grid facilitation agent. Instead, the portion of Aziz cited to show a grid facilitation agent (paragraphs 71 and 72) merely discusses rebooting a computing element to run a boot image located on a SAN. The argument of the Office Action makes clear that both the grid facilitation agent and the grid participation module are allegedly analogous to the boot image located on the SAN. However, Claim 4 requires that the grid node execute the grid facilitation agent. Thus, for the Office Action's interpretation of Aziz to be analogous to the features of Claim 4, the boot image located on the SAN can only be analogous to a grid facilitation agent as claimed once the computing element has rebooted to execute the boot image located on the SAN.

If the grid facilitation agent and the grid participation module are both allegedly analogous to the boot image located on the SAN, then the above underlined elements are not disclosed, taught, or suggested by Aziz. Specifically, the approach of rebooting a computing element to run the boot image located on the SAN does not involve deploying a grid participation module to a grid facilitation agent operating on a grid node. This is so because both the grid participation module and the grid facilitation agent are allegedly analogous to the boot image located on the SAN. As a result, in Aziz, the subject matter (the boot image) allegedly analogous to a grid facilitation agent is not operating on the grid node when the subject matter allegedly analogous to the grid facilitation module is deployed to a grid node. Thus, if a grid facilitation agent is read so broadly as to include a computing element executing a boot image obtained from a SAN, then the above-underlined elements cannot be shown by Aziz.

Further, because Claim 4 requires a grid facilitation agent to run the grid participation module, it is clear from Claim 4 that the grid facilitation agent and the grid participation module are separate entities. On the other hand, the office action argues that both the grid facilitation agent and the grid participation module are the same entity, namely the boot image located on the SAN. As a result, in *Aziz*, nothing can be analogous to instructing a grid facilitation agent, operating on a grid node, to run the grid participation module.

If the Patent Office disagrees, then the Patent Office is respectfully invited to identify (a) what is allegedly analogous to a grid participation agent in Aziz, (b) what is allegedly analogous to a grid participation module in Aziz, and (c) what act in Aziz involves instructing the subject

matter allegedly analogous to a grid participation agent to run the subject matter allegedly analogous to a grid participation module in Aziz.

Claim 4 further recites, "causing the grid node to execute a grid facilitation agent thereon." The portion of Aziz cited to show this feature (paragraphs 71 and 72) merely discusses a computing element rebooting to run a boot image stored externally on a SAN. As explained above, if this feature is read so broad as to encompass a computing element rebooting to run a boot image stored externally on a SAN, then numerous elements of Claim 4 would not be shown, e.g., the above two elements discussed above would not be shown because nothing after a computing element executes the boot image, nothing is deployed to anything analogous to a grid facilitation agent executing on the grid node in the approach of Aziz.

As explained above, neither Aziz nor Clarke, individually or in combination, disclose, teach, or suggest the above-bolded elements of Claim 4. Consequently, as at least one element recited in Claim 4 is not disclosed, taught, or suggested by Aziz, it is respectfully submitted that Claim 4 is patentable over the cited art and is in condition for allowance.

## Claims 3-14, 16-27, and 29-39

Claims 14 and 27 recite features similar to those discussed above with respect to Claim 1, except that Claims 14 and 27 are recited in apparatus and computer-readable medium format respectively. Consequently, for at least the reasons given above with respect to Claim 1, it is respectfully submitted that Claims 14 and 27 are also patentable over the cited art and are each in condition for allowance.

Claims 17 and 30 recite features similar to those discussed above with respect to Claim 4, except that Claims 17 and 30 are recited in apparatus and computer-readable medium format respectively. Consequently, for at least the reasons given above with respect to Claim 4, it is respectfully submitted that Claims 17 and 30 are also patentable over the cited art and are each in condition for allowance.

Claims 3-13, 16, 18-26, 29, and 31-39 are dependent claims, each of which depends (directly or indirectly) on one of the claims discussed above. Each of Claims 3-13, 16, 18-26, 29, and 31-39 is therefore allowable for the reasons given above for the claim on which it depends. In addition, each of Claims 3-13, 16, 18-26, 29, and 31-39 introduces one or more additional limitations that independently render it patentable. However, due to the fundamental differences already identified, to expedite the positive resolution of this case a separate

discussion of those limitations is not included at this time, although the Applicants reserve the right to further point out the differences between the cited art and the novel features recited in the dependent claims.

## **CONCLUSION**

For the reasons set forth above, it is respectfully submitted that all of the pending claims are now in condition for allowance. Therefore, the issuance of a formal Notice of Allowance is believed next in order, and that action is most earnestly solicited.

The Examiner is respectfully requested to contact the undersigned by telephone if it is believed that such contact would further the examination of the present application.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any fee shortages or credit any overages to Deposit Account No. 50-1302.

Respectfully submitted,

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**Date: August 28, 2006** 

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#### **CERTIFICATE OF MAILING**

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Mail Stop AF, Commissioner for Patents, P.Q. Box 1450, Alexandria, VA 22313-1450.

On August 28, 2006 By

Susan Jensen